

# HTML STRUCTURE



**SoftUni Team**  
Technical Trainers



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Software University  
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**#HTML-CSS**



# Semantic HTML

# What is Semantic HTML?

- HTML that **introduces meaning** to the web page rather than just presentation

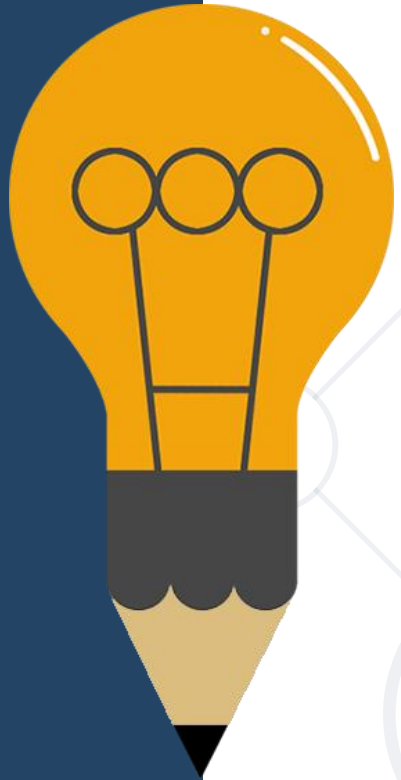


```
<p>Some random text...</p>
```

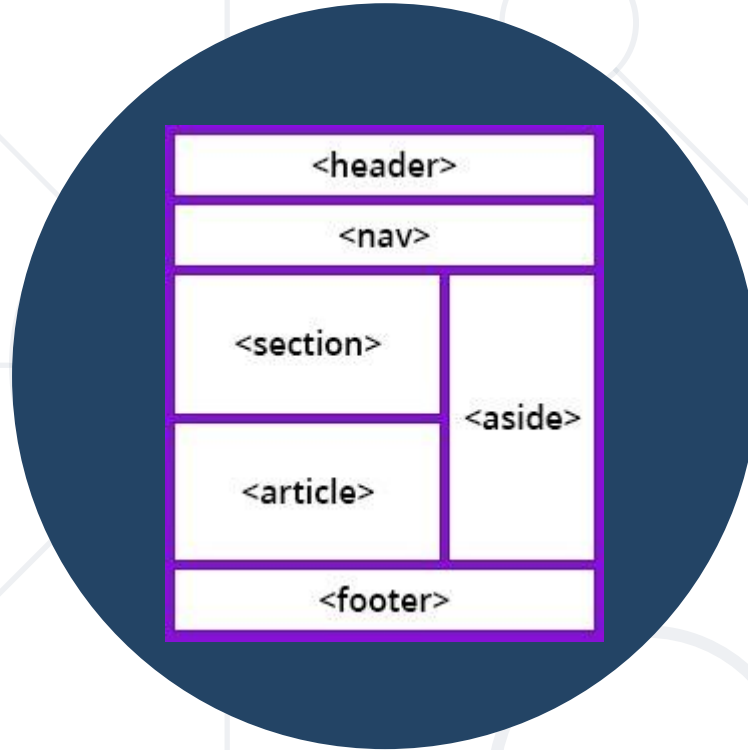
Indicates that the enclosed text is a paragraph

- This is both semantic and presentational
  - People know what paragraphs are and browsers know how to display them

# Why You Should Care About Semantics?



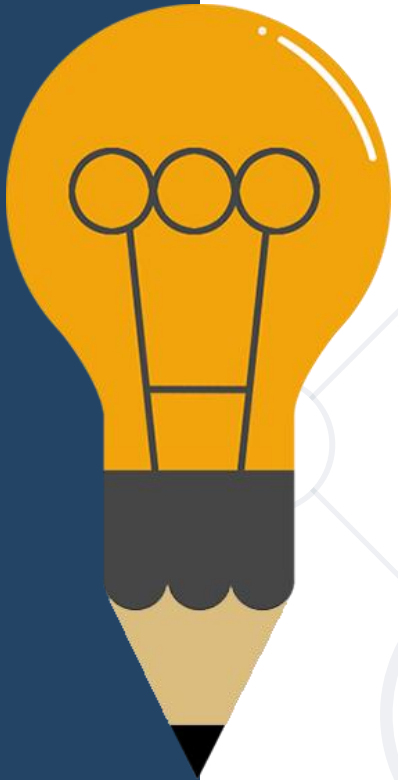
- Provides an **additional information** about that document, which **aids in communication**
- Semantic tags make it **clear** to the **browser** what the **meaning** of a page and its **content** is
  - That clarity is also **communicated** with search engines



# Semantic HTML Tags

# <header></header>

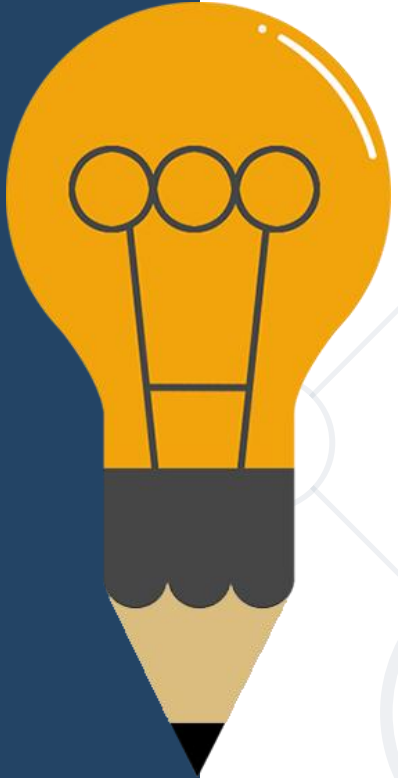
- Represents **introductory content**
- Typically a group of **introductory** or **navigational aids**
- It may contain some heading elements but also other elements like:
  - a logo
  - a search form
  - an author name



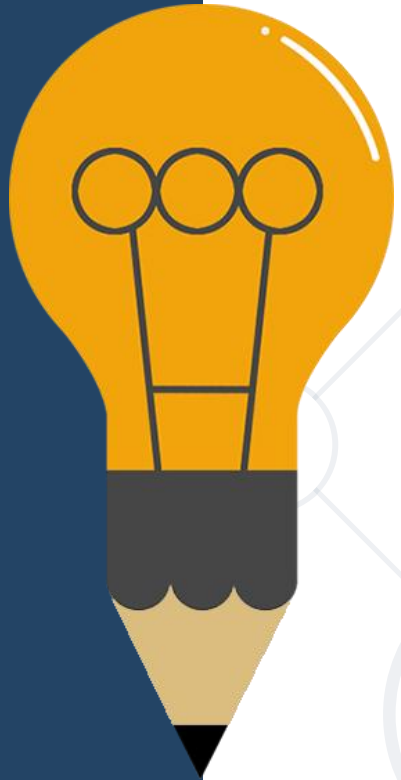


# <nav></nav>

- Represents a **section of a page**
- Its purpose is to **provide navigation links**, either within the current document or to other documents
- Common examples of **navigation sections** are
  - menus
  - tables of contents
  - indexes



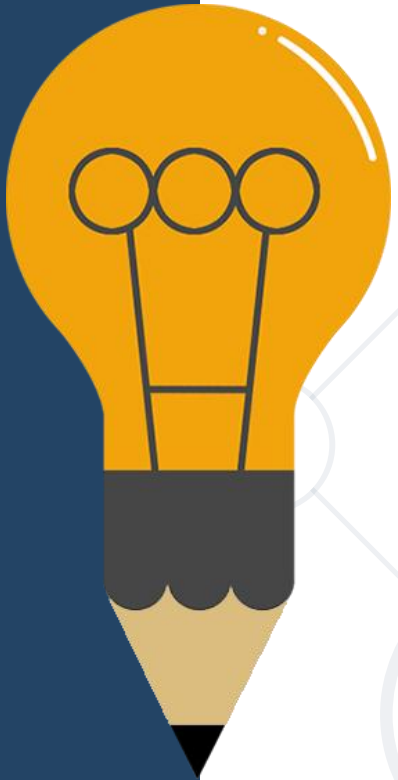
# `<main></main>`



- Represents the **dominant content** of the 'body' of a document
- The main content area consists of content that is **directly related** to or **expands** upon:
  - the central topic of a document
  - the central functionality of an application

# `<aside></aside>`

- Represents a **portion** of a document whose content is only **indirectly related** to the document's **main** content
- Asides are frequently presented as **sidebars** or **call-out boxes**



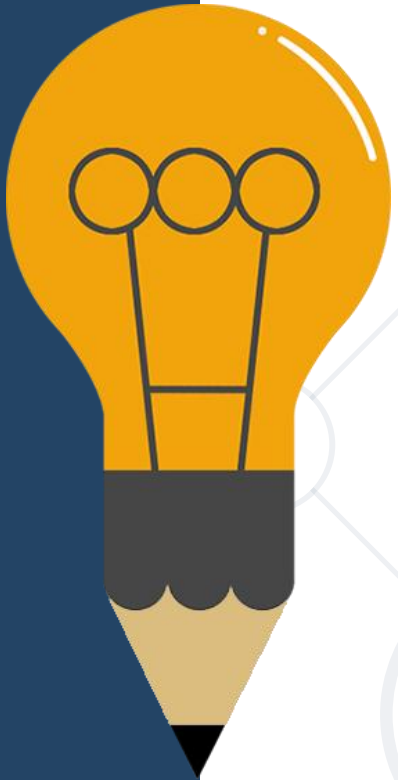
# <footer></footer>

- Represents a **footer** for its **nearest sectioning content** or **sectioning root element**
- A footer typically contains information about:
  - the **author** of the section
  - the **copyright** data
  - the **links** to related documents



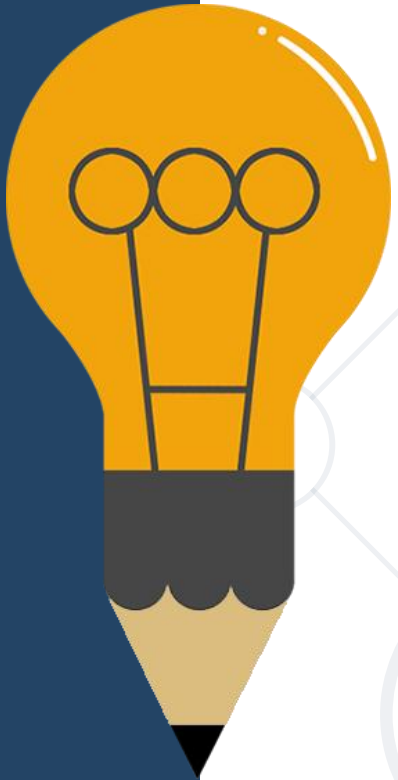
# <article></article>

- Represents a **self-contained composition** in a document, page, application, or site
- Intended to be **independently distributable** or **reusable**
- Examples include:
  - a forum post
  - a magazine
  - newspaper article
  - a blog entry



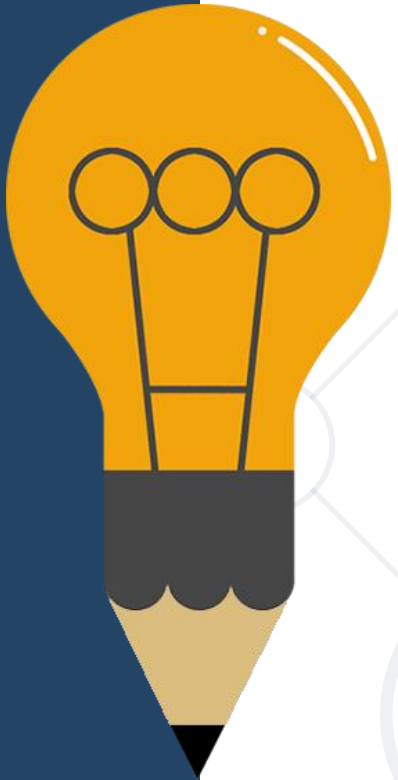
# <section></section>

- Represents a **standalone section** - which **doesn't have** a more **specific semantic element** to represent it
- Typically, but not always, sections have a heading



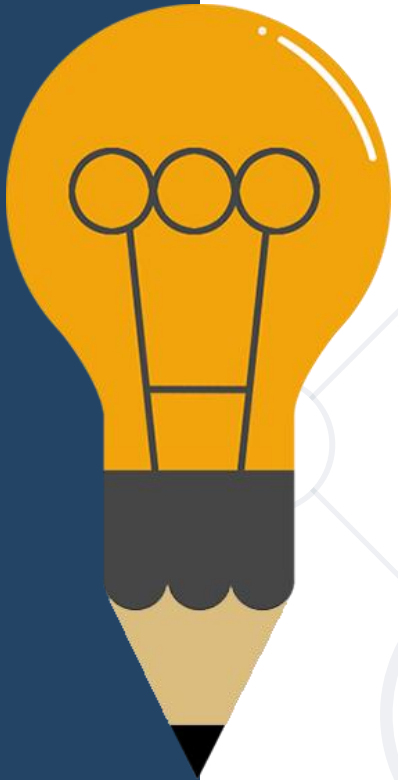
# <figure></figure>

- Represents self-contained content
- Frequently with a caption '**figcaption**'
- Typically referenced as a single unit



# `<mark></mark>`

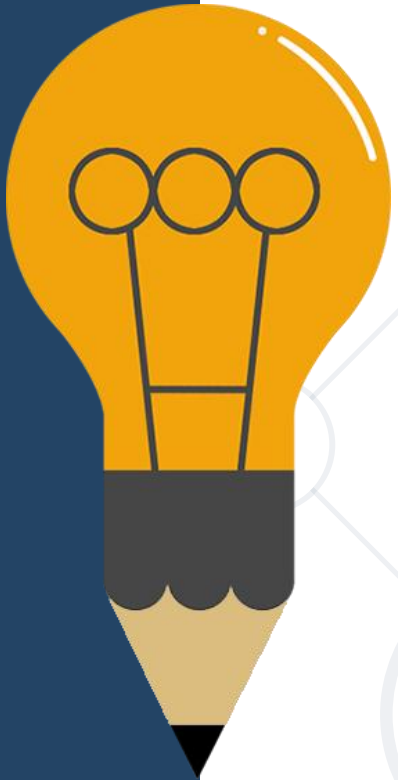
- Represents text which is **marked** or **highlighted** for reference or notation purposes
- Due to the marked passage's relevance or importance in the enclosing context







**Forms**



- The HTML **form** element represents a document section that contains interactive controls for submitting information to a web server
- A form takes input from the site visitor and posts it to the back-end

- **Action** - used to specify where the form data is to be sent to the server after submission of the form
- **Method** - The HTTP method that the browser uses to submit the form
  - POST – Corresponds to the **HTTP POST** method. Form data are included in the body of the form and sent to the server
  - GET – Corresponds to the **HTTP GET** method. Appends form-data into the URL in name/value pairs

## ■ Form - Example

```
<form action="/action_page.php" method="get">  
  <label for="male">Male</label>  
  <input type="radio" name="gender" id="male" value="male">  
  <label for="female">Female</label>  
  <input type="radio" name="gender" id="female" value="female">  
</form>
```

- `<input>` element is the most important form element. It can be displayed in several ways, depending on the **type** attribute
  - `<input type="text">`
  - `<input type="number">`
  - `<input type="password">`
  - `<input type="email">`
  - `<input type="search">`

- `<input type="checkbox">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="submit">`
- `<input type="button">`
- `<input type="file">`

- Input attributes
  - **Value** – specifies the initial value for an input field
  - **Name** – specifies the name of the input element
  - **Placeholder** – specifies a hint that describes the expected value of the input field
  - **Required** – the field must be filled out before submitting the form
  - **Autofocus** – the input should automatically get focus when the page load
  - **Disabled** – specifies that the input field is disabled
  - **Min and Max** – specify the minimum and maximum values

- `<label>` - defines a label for the others forms elements
- The **for** attribute should be equal to the **id** attribute of the related element to bind them together

```
<form action="/action_page.php" method="get">  
  <label for="male">Male</label>  
  <input type="radio" name="gender" id="male" value="male">  
</form>
```



- `<fieldset>` - used to group related data in a form
- `<legend>` - defines a caption for the `<fieldset>` element

```
<form action="/action_page.php">  
  <fieldset>  
    <legend>Personal information:</legend>  
    First name:<br>  
    <input type="text" name="firstname" value="Mickey"><br>  
    Last name:<br>  
    <input type="text" name="lastname" value="Mouse"><br><br>  
    <input type="submit" value="Submit">  
  </fieldset>  
</form>
```

- `<select>` - defines a drop-down list
- `<option>` - defines an option that can be selected

```
<select name="cars">  
  <option value="volvo">Volvo</option>  
  <option value="saab">Saab</option>  
  <option value="fiat">Fiat</option>  
  <option value="audi">Audi</option>  
</select>
```

- `<textarea>` - defines a multi-line input field
- Textarea attributes:
  - Rows – specifies the visible number of lines in a text area
  - Cols – specifies the visible width of a text area

```
<textarea name="message" rows="10" cols="30">  
  The cat was playing in the garden.  
</textarea>
```

- `<button>` - defines a clickable button

```
<button type="button">Click Me!</button>
```

- `<datalist>` - specifies a list of pre-defined options for an `<input>` element

```
<form action="/action_page.php">  
  <input list="browsers">  
    <datalist id="browsers">  
      <option value="Internet Explorer">  
      <option value="Firefox">  
      <option value="Chrome">  
    </datalist>  
  </form>
```



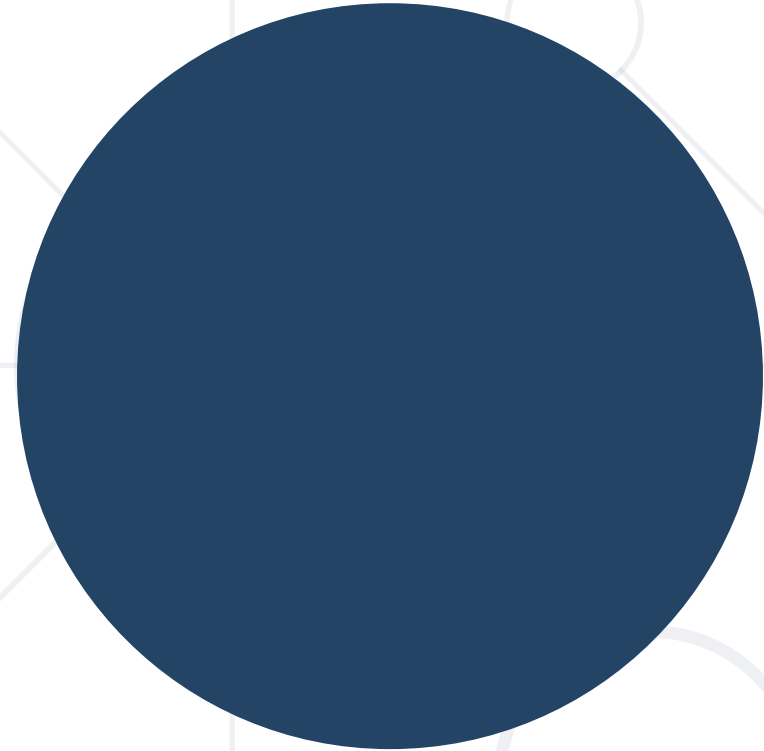
# Tables

- An HTML table is defined with the **<table>** tag
- **<thead>** tag is used to group header content in the table
- **<tbody>** tag is used to group the body content
- **<tfoot>** tag defines a set of rows summarizing the columns of the table
- **<tr>** tag defines a table row
- **<th>** tag defines a table header
- **<td>** tag defines a table data/cell

# Table Example

```
<table>
  <thead>
    <tr>
      <th>Items</th>
      <th>Expenditure</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <th>Donuts</th>
      <td>3,000</td>
    </tr>
```

```
    <tr>
      <th>Stationery</th>
      <td>18,000</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th>Totals</th>
      <td>21,000</td>
    </tr>
  </tfoot>
</table>
```

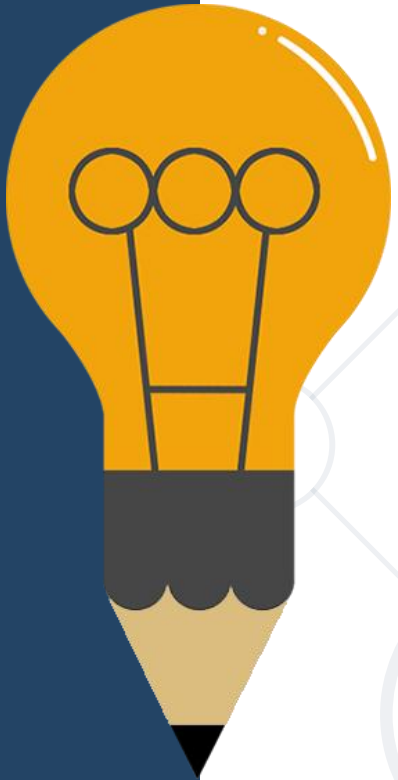


**Microdata**

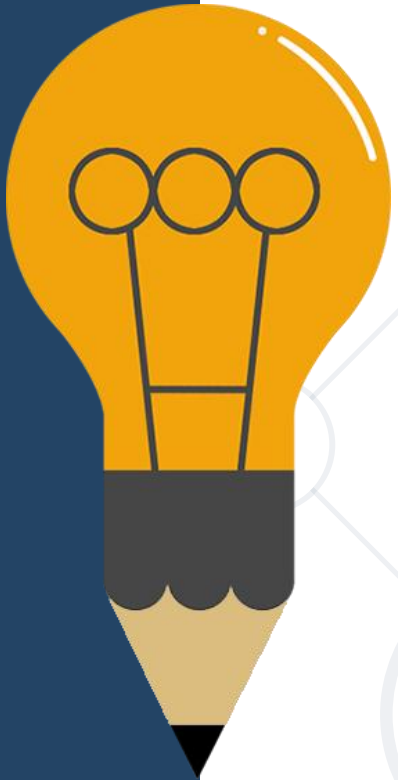


# What is Microdata?

- Search engines, web crawlers, and browsers can **extract** and **process** Microdata from a web page
- They use it to provide a **richer browsing experience** for users
- Search engines benefit greatly from **direct access** to this structured data
- It allows them to **understand** the **information** on web pages and **provide** more **relevant results** to users



# Microdata - Example



`<section>`

Hello, my name is John Doe,  
I am a trainer at SoftUni.  
My friends call me Johnny.  
You can visit my homepage at  
`<a href="https://doe.me">https://doe.me</a>`.  
I live at 123123, Kamelia str, Sofia.

`</section>`

# Microdata - Example (2)

```
<section itemscope itemtype="http://schema.org/Person">  
  Hello, my name is <span itemprop="name">John Doe</span>  
  I am a <span itemprop="jobTitle">trainer</span>.  
  My friends call me <span itemprop="additionalName">Koko</span>.  
  Visit my homepage at <a href=https://doe.me itemprop="url">https://doe.me</a>.  
  <section itemprop="address" itemscope itemtype="http://schema.org/PostalAddress">  
    I live at  
    <span itemprop="streetAddress">123123</span>,  
    <span itemprop="addressLocality">Kamelia str</span>,  
    <span itemprop="addressRegion">Sofia</span>.  
  </section>  
</section>
```



# Live Exercises

- Semantic HTML
- Tags
- Forms
- Tables
- Microdata



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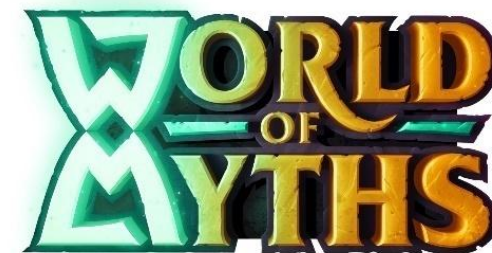
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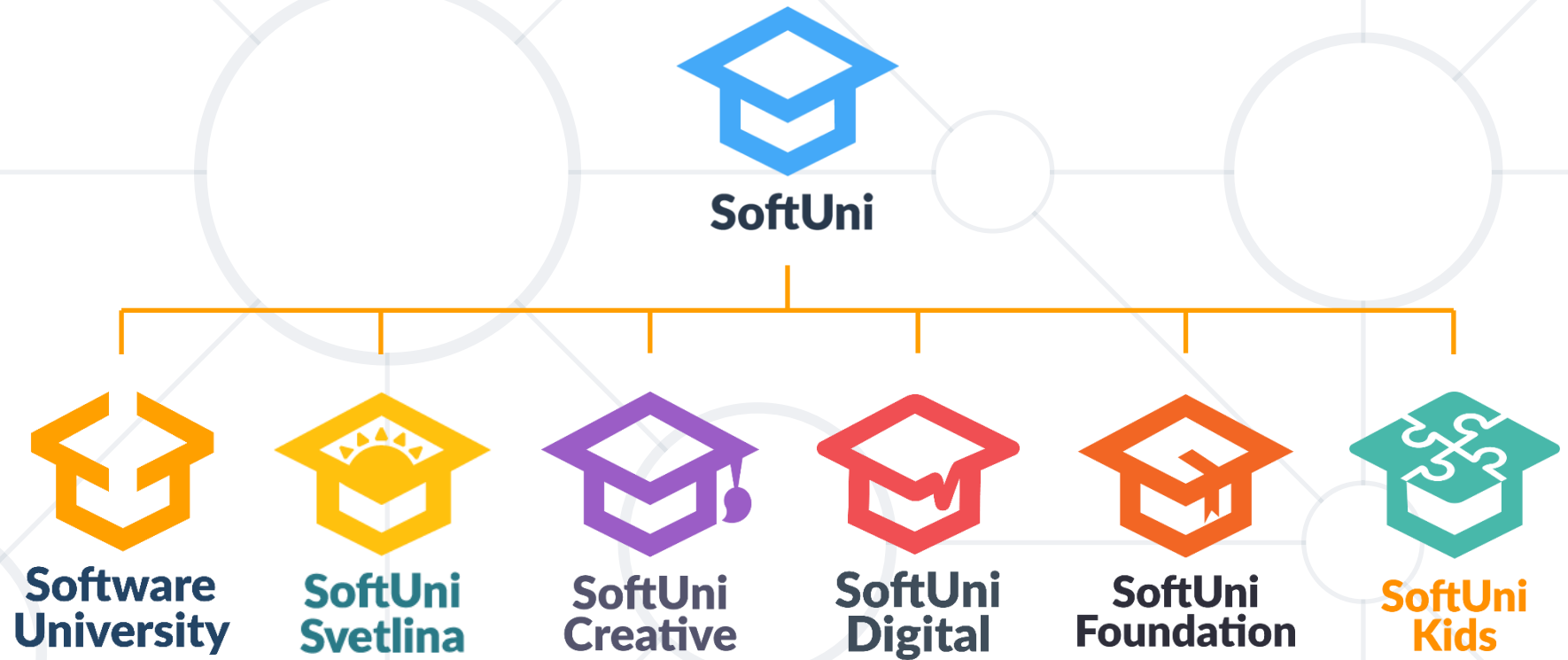
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